

REMARKS/ARGUMENTS

The Office Action mailed April 7, 2006 has been reviewed and carefully considered. Claims 1-10, 12, and 17-18 are pending in this application, with claim 1 being the only independent claim. Claims 4-6 and 18 are withdrawn as being drawn to a non-elected species. Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

Claim Amendments

The preamble of independent claim 1 is amended to recite a "gasification reactor vessel for gasification of fuels, residues, and wastes with an oxygen containing oxidizing agent at pressures between ambient pressure and 80 bar and at temperatures between 1000°C and 1600°C". Support for these features is found in the specification at page 3, lines 9-13; page 5, lines 17-20; and page 9, lines 3-5.

Independent claim 1 is further amended to recite "the pressure shell encasing a reaction space of said gasification reactor vessel and absorbing a differential pressure between the pressure in the reactor space and the external ambient pressure". Support for this feature is found on page 9, lines 8-10.

Independent claim 1 is further amended to recite "said ducts being arranged and dimensioned for providing cooling along essentially an entire length of said body wall between said shell ends". Support for this feature is found in Figs. 1 and 3 and page 9, lines 20-22.

Independent claim 1 is also amended to recite "a refractory lining having first and second layers concentrically arranged on an inner surface of said encircling body wall". Support for this feature is found at page 5, line 20 to page 6, line 3; and page 9, lines 10-12.

Claim 11 is canceled without prejudice. Claim 12 is amended to depend directly from claim 1.

Rejection of the Claims

Claims 1-3 are rejected under 35 U.S.C. §102(b) as being anticipated by Nagai (JP 04-367488).

Claims 1-3, 11 and 12 are rejected under 35 U.S.C. §102(e) as being anticipated by Jewell (WO 01/86220).

Claim 7 is rejected under 35 U.S.C. §103(a) as being unpatentable over Jewell (WO 01/86220) in view of McKee (US 1,961,903).

Claim 8-10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Jewell in view of McKee, as applied to claim 7 above, and further in view of Vihl (US 3,318,376) or Siclari et al. (US 3,787,481).

Claim 17 is rejected under 35 U.S.C. §103(a) as being unpatentable over Jewell (WO 01/86220) in view of McKee and Vihl or Siclari et al.

Claims 1-3, 7, 10-12 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Affleck (US 2,697,598) in view of Schulz (US 4,340,397).

Nagai discloses a glass-lined tank structure with a heat exchanger. The tank body includes an outer cover plate 3 and a glass lining layer 5 formed inside the tank. A heat exchanger 2 is welded onto the cover plate to form passages 4. However, this glass-lined tank fails to teach or suggest a "pressure shell encasing a reaction space of said gasification reactor vessel and absorbing a differential pressure between the pressure in the reactor space and the external ambient pressure", "said ducts being arranged and dimensioned for providing cooling along essentially the entire length of said body wall between said shell ends", or "a refractory lining

having first and second layers concentrically arranged on an inner surface of said encircling body wall", as now expressly recited in independent claim 1. Accordingly, independent claim 1 is not anticipated by Nagai.

Jewell can not be considered prior art under 35 U.S.C. §102(e) because it is not (1) an application for patent published under section 122(b), by another filed in the United States or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant. More specifically, Jewell does not designate the United States and is therefore not an application filed in the United States (Jewell claims priority to a U.S. application but is not itself a U.S. application). Therefore, Jewell does not qualify as prior art under 35 U.S.C. §102(e). Accordingly, the rejection of claims 1-3, 11 and 12 as anticipated by Jewell should now be removed.

Affleck discloses a cooling means for a blast furnace. The blast furnace is not a fly stream gasification reactor vessel as expressly recited in independent claim 1 and in fact is operated entirely differently. Accordingly, Affleck fails to disclose teach or suggest anything about a fly stream gasification reactor vessel. Furthermore, Affleck is concerned with only a particular section of the blast furnace, i.e., the bosh region (see col. 1, lines 15-21). Thus Affleck fails to disclose "a pressure shell, said pressure shell having an encircling body wall and shell ends at each of opposite ends of the body wall, said pressure shell encasing a reaction space of said gasification reactor vessel and absorbing a differential pressure between the pressure in the reactor space and the external ambient pressure" and "a plurality of cooling ducts extending around an outer surface of said body wall, said ducts being fixedly connected to said outer surface, interior spaces of said cooling ducts communicating with said outer surface, and said

ducts being arranged and dimensioned for providing cooling along essentially the entire length of said body wall between said shell ends", as now expressly recited in independent claim 1.

Schulz fails to teach or suggest what Affleck lacks. Schulz discloses a slagging gasifier and is also designed as a blast furnace. Schultz also fails to disclose the recited cooling ducts because Schulz discloses a cooling means 28 and 29 located in the refractory lining (see e.g., col. 4, lines 61-66 of Schulz). Accordingly, the combined disclosures of Affleck and Schulz fail to teach or suggest for "a plurality of cooling ducts extending around an outer surface of said body wall, said ducts being fixedly connected to said outer surface, interior spaces of said cooling ducts communicating with said outer surface, and said ducts being arranged and dimensioned for providing cooling along essentially the entire length of said body wall between said shell ends", as now expressly recited in independent claim 1.

In view of the above amendments and remarks, independent claim 1 is allowable over the prior art of record.

Dependent claims 2-10, 12, and 17-18, each being dependent on independent claim 1, are deemed to be allowable for at least the same reasons as is independent claim 1, as well as for the additional limitations recited therein.

Independent claim 1 is a generic claim in that each of the dependent claims depend therefrom and include all the limitations thereof. Accordingly, withdrawn claims 4-6 and 18 should be considered upon allowance of independent claim 1.

The application is now deemed to be in condition for allowance and notice to that effect is solicited.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,
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